NEW YORK SHIPBUILDING CORPORATION

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NEW YORK SHIPBUILDING CORPORATION

Profile & Dks.
New York Shipbldg Co
Hull 240 S.S. "Wenatchee"
Pl. 4124

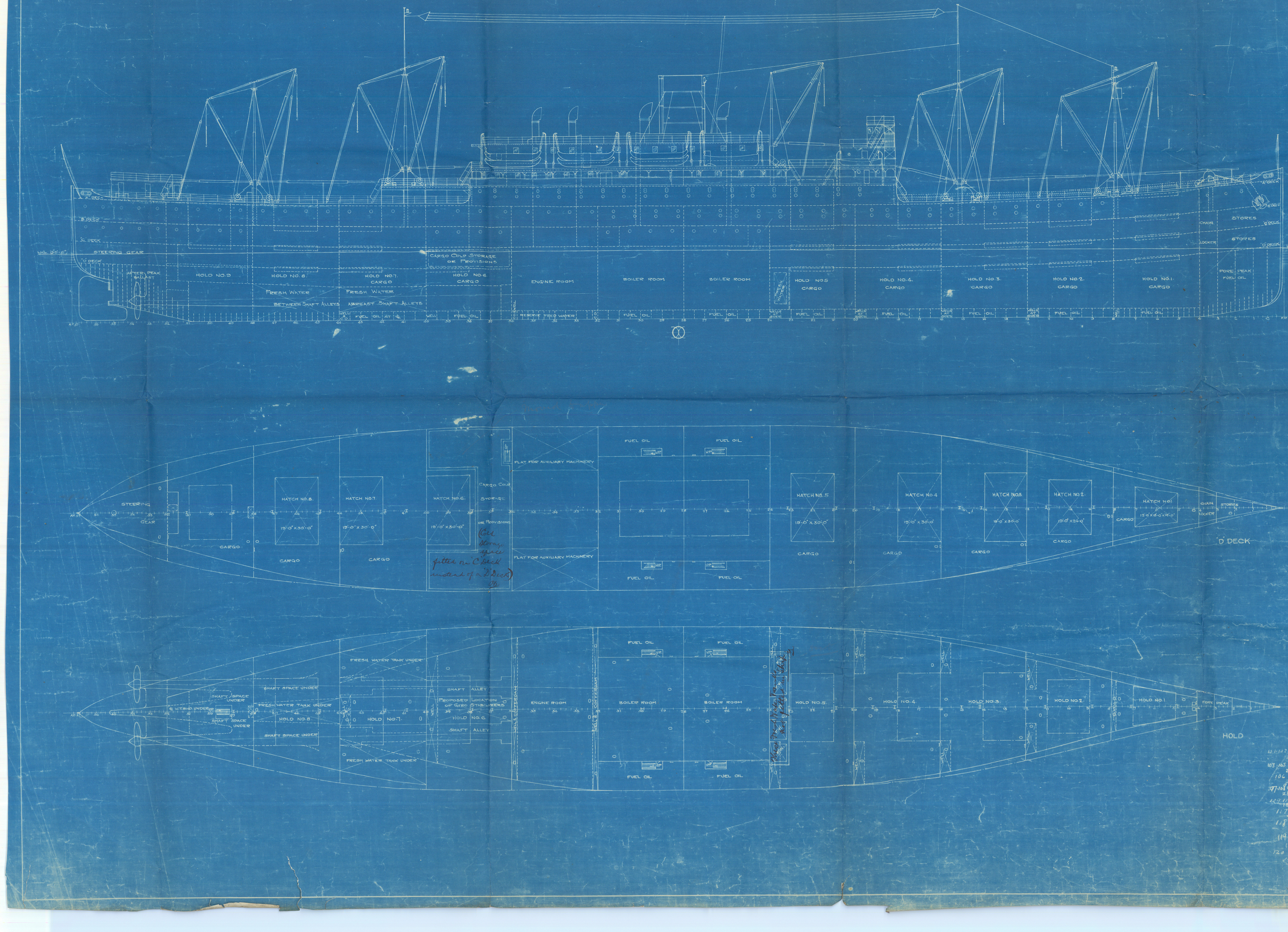
President
Jefferson

NIM.

NEW YORK SHIPBUILDING CORP
CAMDEN, N.J., U.S.A.
BLUE PRINT ROOM
Print No.
MAR

W1420-0129

DATE	ALTERATION	NAVAL ARCH.


A DECK
B DECK
C DECK
D DECK
L.W.L. 30'-6"
STEERING GEAR
AFTER PEAK BALLAST
HOLD NO.9
HOLD NO.8
HOLD NO.7 CARGO
HOLD NO.6 CARGO
CARGO COLD STORAGE OR PROVISIONS
FRESH WATER
FRESH WATER
BETWEEN SHAFT ALLEYS
ABREAST SHAFT ALLEYS
ENGINE ROOM
BOILER ROOM
BOILER ROOM
FRESH WATER
HOLD NO.5 CARGO
HOLD NO.4. CARGO
HOLD NO.3. CARGO
HOLD NO.2. CARGO
HOLD NO.1. CARGO
CHAIN LOCKER
STORES
STORES
FORE PEAK FUEL OIL
WELL & C.D.
FUEL OIL AT ℄
WELL
FUEL OIL
RESERVE FEED WATER
FUEL OIL
WELLS AT SIDES
A.P.
F.P.
STEERING GEAR
HATCH NO.8.
HATCH NO.7
HATCH NO.6.
19'-0" x 30'-0"
CARGO
CARGO COLD STORAGE OR PROVISIONS
FLAT FOR AUXILIARY MACHINERY
FUEL OIL
UP
HATCH NO.5
HATCH NO.4
HATCH NO.3
HATCH NO.2
HATCH NO.1
CHAIN LOCKER
STORES
D DECK
SHAFT SPACE UNDER
FRESH WATER TANK UNDER
℄ W.T. BHD. UNDER
HOLD NO.8.
HOLD NO.7.
HOLD NO.6.
SHAFT ALLEY
PROPOSED LOCATION OF GYRO STABILIZERS
WELL & COFFERDAM
ENGINE ROOM
BOILER ROOM
F.W.
HOLD NO.5.
HOLD NO.4
HOLD NO.3
HOLD NO.2
HOLD NO.1
FORE PEAK
HOLD

(Cold Storage space fitted on 'C' Deck instead of on 'D' Deck) OB.

These Fresh Water Tanks not fitted in Ship. OB

APPROVED BY
AMER. BUR. OF SHIPPING
MAY, 2, 1919.

LIBRARY STAMPS
1 5 1
2 9 1
3-5 M/10 3
6-8 9/10 3
9 68 1
10 57 1
11 LIB 1
12-14 B.SHIP 3
15-17 N.N. 3
18-23 U.S.S.B. 6
14 AP. 19
24-26 MAIL 3
22 AP. 19
27 MAIL VAND 1
28 AP. 19
28 5 1
29 AP. 19
29 MAIL 1
30 AP. 19
30 1 1
4 MY 19
31 GREIN 1
12 MY 19
32 M/10 1
33 WORKMAN 1
16 MY 19
34 M/10 1
16 MY 19
35-36 MAIL 2
19 MY 19
37 GE 1
23 MY 19
38 MAIL 1
29 MY 19
39 U.S.S.B. 1
3 JE 19
40 MAIL 1
3 JE 19
41 MAIL 1
4 JE 19
42 M/10 1
5 JE 19
43-46 LLOYDS 4
6 JE 19
47 2 1
19 JE 19
48-51 MAIL 4
21 JE 19
52 CORNBROOKS 1
25 JE 19
53 N.N. 1
26 JE 19
54 MAIL 1
30 JE 19
55 GROESBECK 1
1 JY 19
56-57 B.SHIP 2
58 VAND 1
2 JY 19
59-60 MAIL 2
23 JY 19
61 MAIL 1
28 JY 19
62 N.N. 1
14 AG 19
63 68 1
12 S 19
64-65 MAIL 2
24 S 19
66-67 MAIL 2
2 O 19
68 MAIL L.V. 1
6 O 19
69 M/10 1
2 O 19
70-71 5 2
30 O 19
72 MAIL 1
6 JA 20
73 9 1
7 JA 20
74 5 1
13 JA 20
75 MAIL 1
14 JA 20
76 2 1
14 JA 20
77 MAIL 1
19 JA 20
78-80 51 3
18 F 20
81 MAIL 1
1 MR 20
82-83 GROESBECK
2 MR 20
84-85 22 2
4 MR 20
86 51 1
5 MR 20
87-89 51 3
13 MR 20
90 2 1
17 MR 20
91-94 51 4
18 MR 20
95 MAIL 1
27 MR 20
96 2 1
12 MY 20
97 NIAGOUN 1
22 MY 20
98 MAIL 1
3 JE 20
99 5 1
7 JE 20
100 GE 1
25 JY 20
101-102 GROESBECK 2
20 JY 20
103-105 52 3
23 JY 20
106 51 1
24 JY 20
107-108 CORNBROOKS 2
28 JY 20
109-116 51 8
18 D 20
117 MAIL 1
12 JA 21
118 MAIL 1
4 F 21
119 MAIL 1
10 MR 21
120 MAIL 1
14 MR 21
W1420-0129

555'-0" O.A. x 72'-0" x 50'-0"

GENERAL ARRANGEMENT
PROFILE, DECK & HOLD PLANS

MADE BY, R.B. SCALE 1/16" = 1 FT. DATE 14 APR 1919

NEW YORK SHIPBUILDING CORPORATION
CAMDEN NEW JERSEY U.S.A.

DR. 251-302-B

NAVAL ARCHITECT.

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Lloyd's Register Foundation

LLOYDS REGISTER OF SHIPPING
RECEIVED
23 MAR 1918
LONDON

W1420 - 0130

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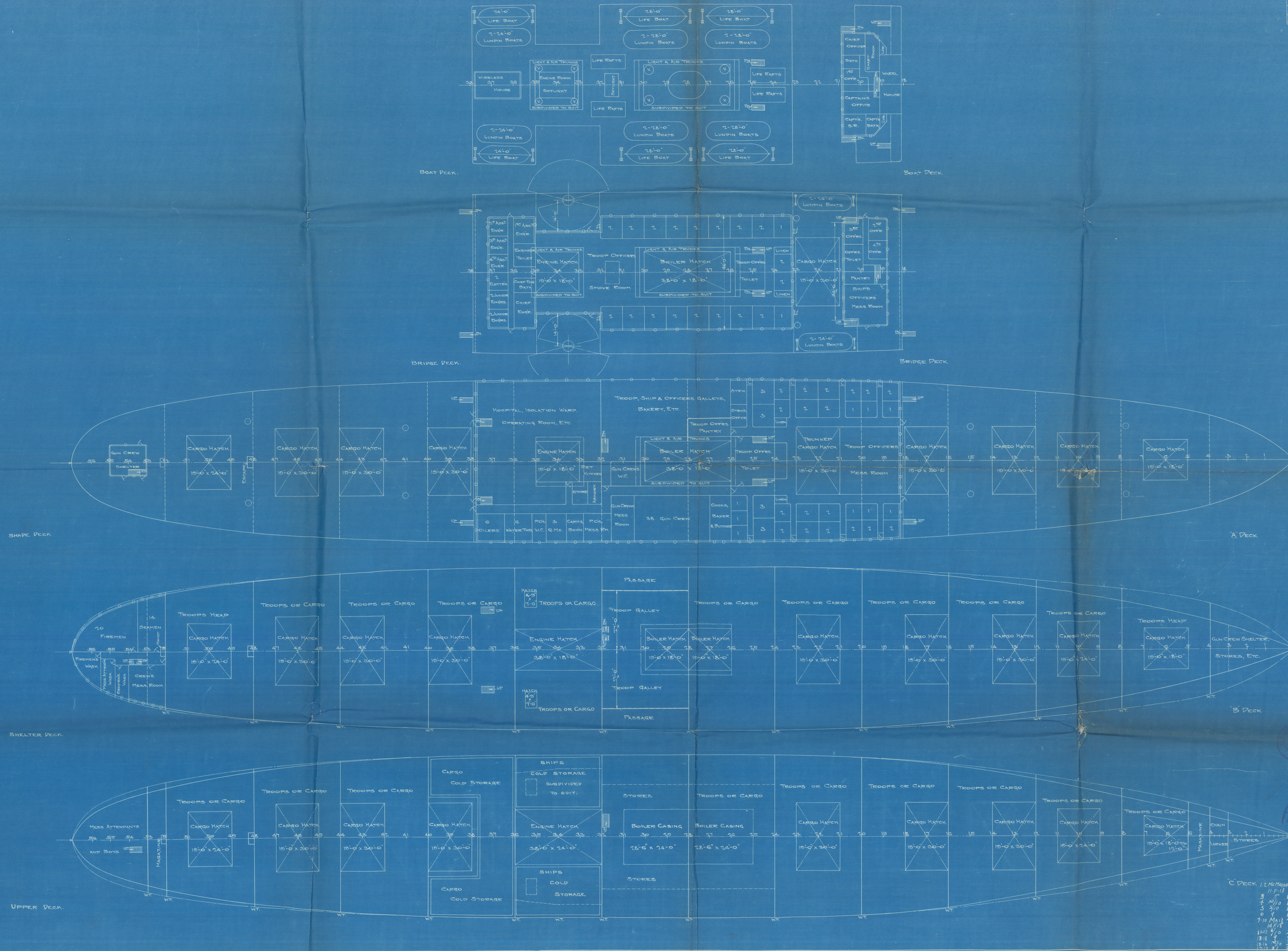
Foundation

NEW YORK SHIPBUILDING CORP.
CAMDEN, N. J., U. S. A.,
BLUE PRINT ROOM
Print No. 21
Made FEB 21 1918
For Dept. M

W1420-0130

DATE.	ALTERATIONS.	NAVAL ARCHITECT.
21, FEB., 18	SHIPS COLD STORAGE LOWERED FROM "B" TO "C" DECK.	E.H.R.
21, FEB., 18	HATCH; ADDED PORT & STBD. THRU OVER COLD STORAGE. "B" DECK	E.H.R.


24'-0" LIFE BOAT
2-24'-0" LUNDIN BOATS
28'-0" LIFE BOAT
2-28'-0" LUNDIN BOATS
WIRELESS HOUSE
LIGHT & AIR TRUNKS
ENGINE ROOM SKYLIGHT
SUBDIVIDED TO SUIT
LIFE RAFTS
CHIEF OFFICER
BATH
2ND OFFR.
CHART ROOM
WHEEL HOUSE
CAPTAINS OFFICE
CAPTS. B.R.
CAPTS. BATH
BOAT DECK
BOAT DECK
3RD ASST. ENGR.
2ND ASST. ENGR.
1ST ASST. ENGR.
ELECTN.
2 JUNIOR ENGRS.
CHIEF ENGR.
TOILET
CHIEF ENGR. BATH
ENGINE HATCH 15'-0" x 18'-0"
TROOP OFFICERS
SMOKE ROOM
BOILER HATCH 28'-0" x 18'-0"
TROOP OFFRS.
TOILET
LINEN
CARGO HATCH 15'-0" x 30'-0"
3RD OFFR.
4TH OFFR.
PANTRY
SHIPS OFFICERS MESS ROOM
BRIDGE DECK
BRIDGE DECK
GUN CREW SHELTER
CARGO HATCH 15'-0" x 24'-0"
CARGO HATCH 15'-0" x 30'-0"
ESCAPE
HOSPITAL, ISOLATION WARD, OPERATING ROOM, ETC.
TROOP, SHIP & OFFICERS GALLEYS, BAKERY, ETC.
STEWS. OFFICE
TROOP OFFRS. PANTRY
PET KITCHEN
GUN CREWS W.C.
STORES
GUN CREWS MESS ROOM
38 GUN CREW
COOKS, BAKER & BUTCHER
TRUNKED CARGO HATCH
TROOP OFFICERS MESS ROOM
CARGO HATCH 15'-0" x 18'-0"
6 OILERS
6 WATER TDRS.
W.C.
POL. & Q.MS.
3 BOSN
CARPS.
P.O.S. MESS RM.
SHADE DECK
"A" DECK
20 FIREMEN
FIREMENS WASH
14 SEAMEN
CREWS MESS ROOM
TROOPS HEAD
TROOPS OR CARGO
HATCH 4'-0" x 7'-0"
ENGINE HATCH 32'-0" x 18'-0"
PASSAGE
TROOP GALLEY
BOILER HATCH 15'-0" x 18'-0"
GUN CREW SHELTER, STORES, ETC.
W.T.
SHELTER DECK
"B" DECK
MESS ATTENDANTS AND BOYS
MAGAZINE
CARGO COLD STORAGE
SHIPS COLD STORAGE SUBDIVIDED TO SUIT.
ENGINE HATCH 32'-0" x 24'-0"
STORES
BOILER CASING 23'-6" x 24'-0"
CHAIN LOCKER
UPPER DECK
UP

LLOYD'S REGISTER OF SHIPPING
FEB 28 1918
NEW YORK

Approved

President Jefferson

"C" DECK

1-2	Mr Magowan 11-F-18	
3	5	1
4	M/10	1
5	S/10	1
6	9	1
7-10	Mail 14 F 18	4
11-12	S/10	2
13-14	9	2
15-16	M/10	2
17-18	5/	2
19-20	5	1
20-22	Mail	3
23-24	Mail 21 F 18	2

REVISED

OUTLINE GENERAL ARRANGEMENT
DECK PLANS.
SCALE 1/16" = 1 FT. MADE BY J.W.T. DATE 11. FEB., 1918.
NEW YORK SHIPBUILDING CORPORATION.
CAMDEN, NEW JERSEY, U.S.A.
DR. 240-202-H.
E. H. Rigg. NAVAL ARCHITECT.

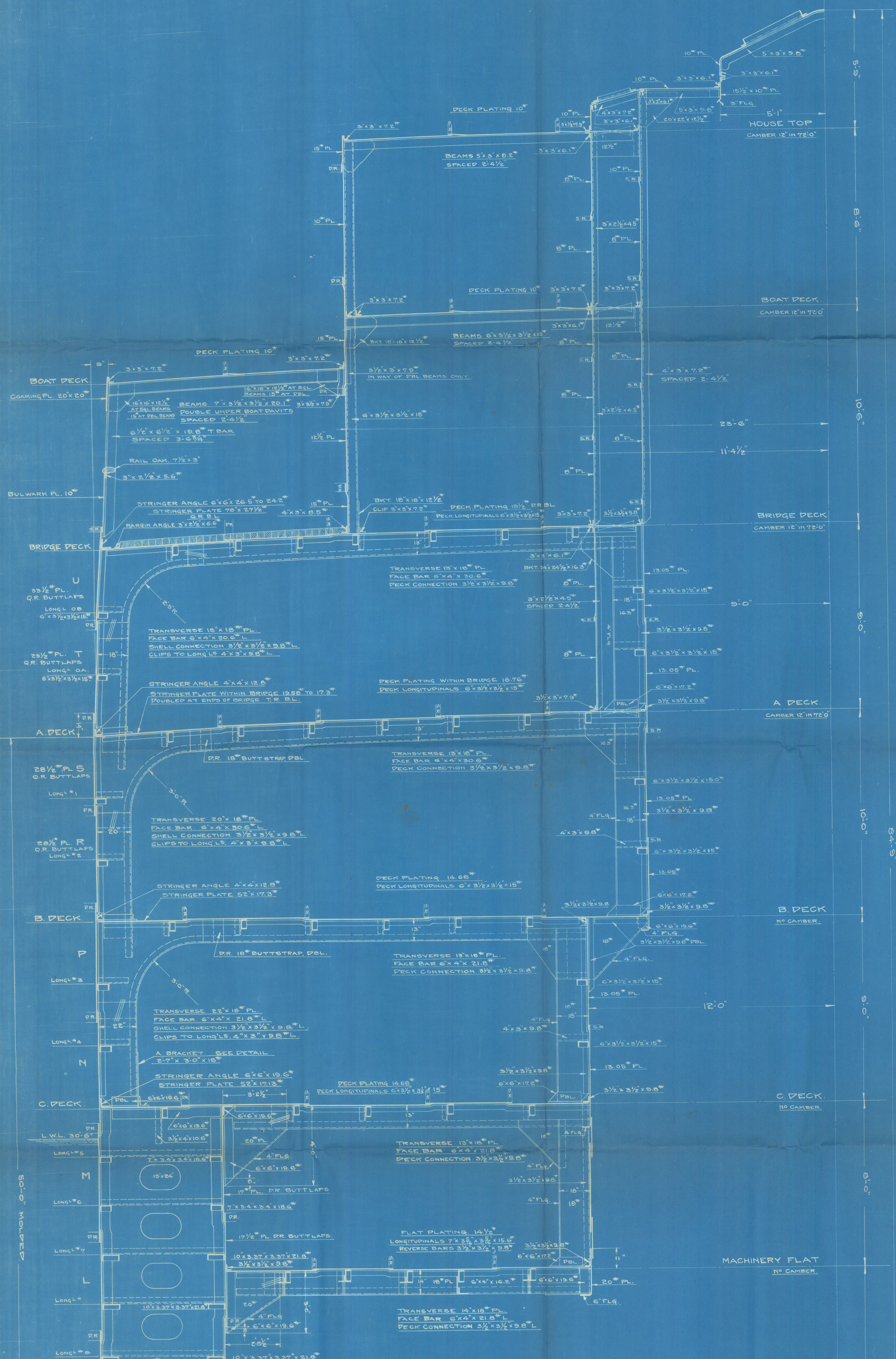
W1420-0130

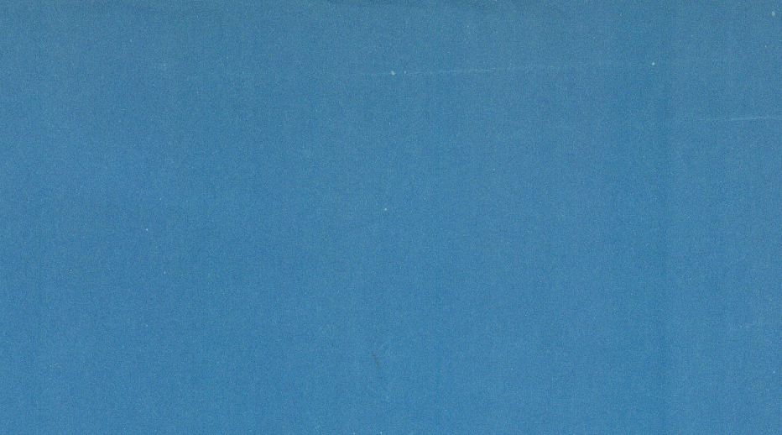
Midship Section
New York Shipbldg Co's ~~Hall~~ Hull 240
S.S. "Wenatchee"
Phl 4124

RETAIN

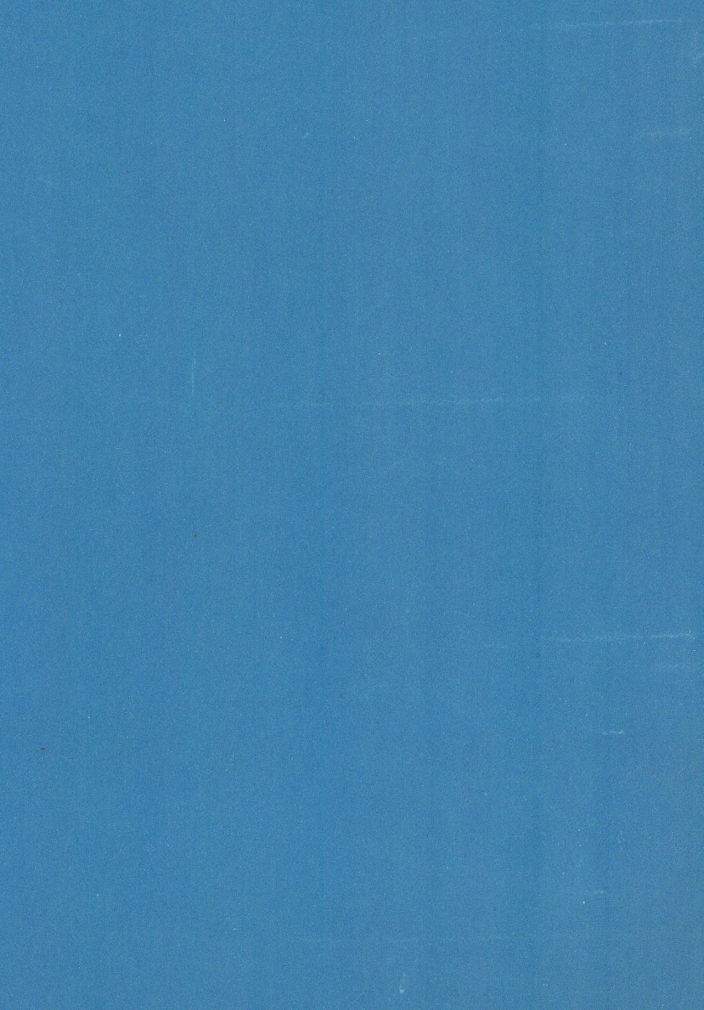
[illegible]
[illegible]
BLUE PRINT ROOM
Print No. 12
Made MAR [illegible] 1921
Sent [illegible] Mail

W1420-0128

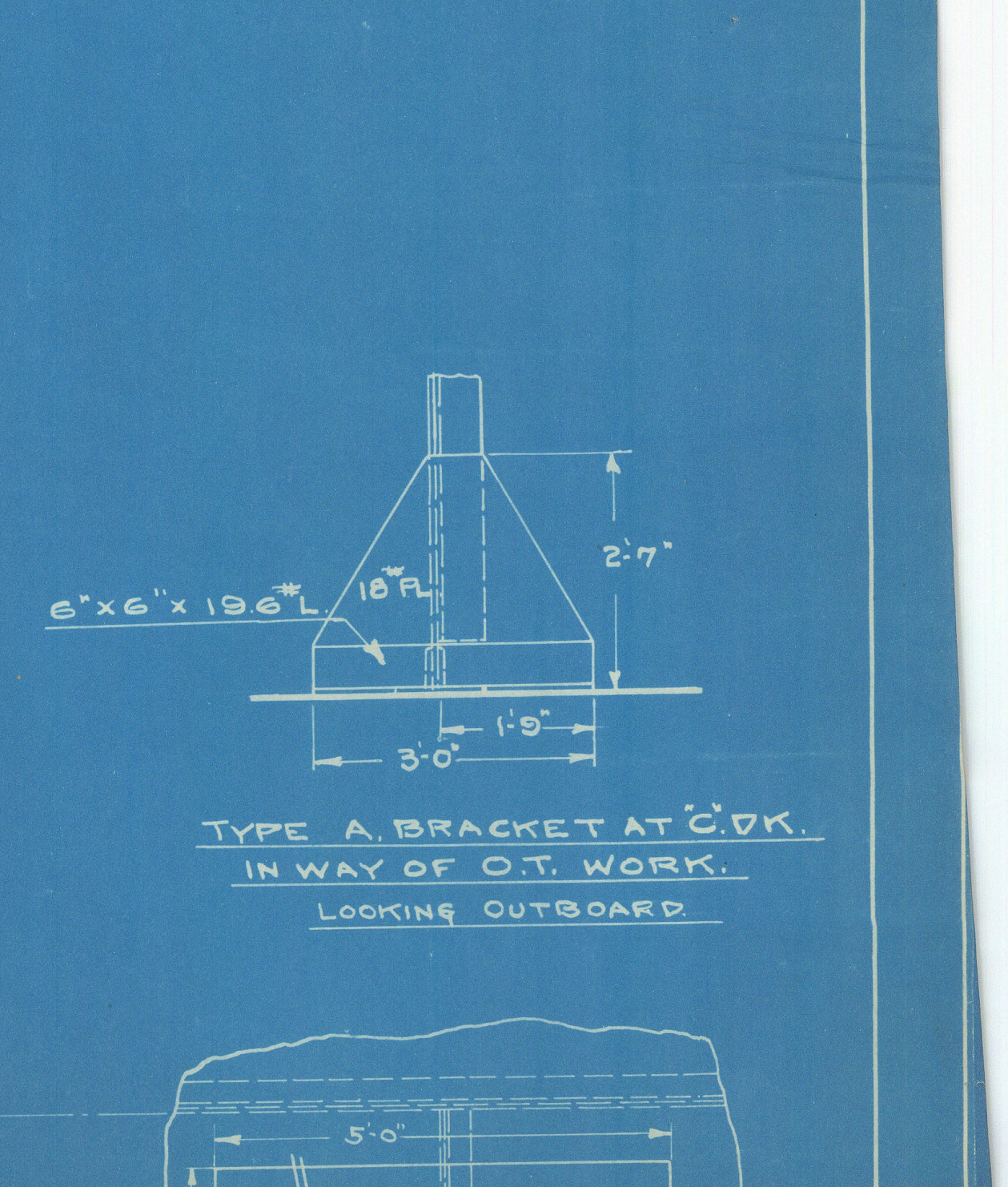

HOUSE TOP
CAMBER 12" IN 72'-0"
DECK PLATING 10#
BEAMS 5"x3"x8.2#
SPACED 2'-4½"
BOAT DECK
CAMBER 12" IN 72'-0"
BEAMS 6"x3½"x3½"x13#
SPACED 2'-4½"
DECK PLATING 10#
BOAT DECK
COAMING PL. 20"x20#
BEAMS 7"x3½"x3½"x20.1#
DOUBLE UNDER BOAT DAVITS
SPACED 2'-4½"
6½"x6½"x19.8# T BAR
SPACED 3'-6¾"
RAIL CAR. 7½"x3"
BULWARK PL. 10#
STRINGER ANGLE 6"x6"x26.5 TO 24.2#
STRINGER PLATE 78"x27½#
MARGIN ANGLE 3"x2½"x6.6#
DECK PLATING 10½# D.R.B.L.
DECK LONGITUDINALS 6"x3½"x3½"x15#
BRIDGE DECK
CAMBER 12" IN 72'-0"
23'-6"
11'-4½"
33½# PL. U
D.R. BUTTLAPS
TRANSVERSE 15"x18# PL.
FACE BAR 6"x4"x30.6#
DECK CONNECTION 3½"x3½"x9.8#
TRANSVERSE 18"x18# PL.
FACE BAR 6"x4"x30.6#L
SHELL CONNECTION 3½"x3½"x9.8#L
CLIPS TO LONGLS 4"x3"x9.8#L
29½# PL. T
D.R. BUTTLAPS
STRINGER ANGLE 4"x4"x13.8#
STRINGER PLATE WITHIN BRIDGE 13.56# TO 17.3#
DOUBLED AT ENDS OF BRIDGE T.R.B.L.
DECK PLATING WITHIN BRIDGE 18.76#
DECK LONGITUDINALS 6"x3½"x3½"x15#
A. DECK
A DECK
CAMBER 12" IN 72'-0"
28½# PL. S
D.R. BUTTLAPS
D.R. 18" BUTTSTRAP DBL.
TRANSVERSE 13"x18# PL.
FACE BAR 6"x4"x30.6#
DECK CONNECTION 3½"x3½"x9.8#
TRANSVERSE 20"x18# PL.
FACE BAR 6"x4"x30.6#L
SHELL CONNECTION 3½"x3½"x9.8#L
CLIPS TO LONGLS 4"x3"x9.8#L
28½# PL. R
D.R. BUTTLAPS
DECK PLATING 14.66#
DECK LONGITUDINALS 6"x3½"x3½"x15#
STRINGER ANGLE 4"x4"x12.8#
STRINGER PLATE 52"x17.3#
B. DECK
B. DECK
NO CAMBER
P
D.R. 18" BUTTSTRAP DBL.
TRANSVERSE 13"x18# PL.
FACE BAR 6"x4"x21.8#
DECK CONNECTION 3½"x3½"x9.8#
TRANSVERSE 22"x18# PL.
FACE BAR 6"x4"x21.8#L
SHELL CONNECTION 3½"x3½"x9.8#L
CLIPS TO LONGLS 4"x3"x9.8#L
A BRACKET SEE DETAIL
N
STRINGER ANGLE 6"x6"x19.6#
STRINGER PLATE 52"x17.13#
DECK PLATING 14.66#
DECK LONGITUDINALS 6"x3½"x3½"x15#
12'-0"
C. DECK
C. DECK
NO CAMBER
L.W.L. 30'-6"
M
TRANSVERSE 13"x18# PL.
FACE BAR 6"x4"x21.8#
DECK CONNECTION 3½"x3½"x9.8#
17# PL. D.R. BUTTLAPS
17½# PL. D.R. BUTTLAPS
FLAT PLATING 14½#
LONGITUDINALS 7"x3½"x3½"x15.6#
REVERSE BARS 3½"x3½"x9.8#
MACHINERY FLAT
NO CAMBER
L
TRANSVERSE 14"x18# PL.
FACE BAR 6"x4"x21.8#L
DECK CONNECTION 3½"x3½"x9.8#L
50'-0" MOLDED
84'-5"
30'-0" FROM TRANSVERSES 33 TO 34.
28'-0" AT TRANSVERSE 36. STRAIGHT TAPER BETWEEN 34 & 36.
K
20# PL.
10"x3.37"x3.37"x21.8#
18# PL. D.R. BUTTLAPS
6"x6"x19.6#
10"x3.47"x3.47"x26.4#
18½# PL. D.R. BUTTLAPS
STIFFENERS 6"x3½"x13.5 LS
J
10"x3.47"x3.47"x26.4#
19# PL. D.R. BUTTLAPS
10"x3.5"x3.5"x27.2#
H
10"x3.55"x3.55"x28.9#
19½# PL. D.R. BUTTLAPS
15"x24"
6"x6"x21.9#
6"x6"x19.6#
DBL
G
9"D
15"x18"
ENGINE SEATING
SECTION AT FORD END
OF REDUCTION GEAR
BETHELEM H. BEAM 14"x91#
℄ OF SHAFT
17'-7"
6"x6"x24.2# LS
3½"x3½"x13.6# LS
27#x30"x38" DBL'G.
27# PL.
35# PL.
5"x3½"x19.8#
6"x6"x28.7#
24"x18"
30# PL.
6"x3½"x15.3# FAR
3½"x3½"x11.1# NEAR
3½"x3½"x11.1#
25 1/8# LONGITUDINALS TO SUIT FOUND'N
19.58# PL.
3'-0"
4'-2"
19'-10"
F
E
D
C
B
A


6"x6"x19.6#L
18# PL.
2'-7"
1'-5"
3'-0"

TYPE A BRACKET AT C. DK.
IN WAY OF O.T. WORK.
LOOKING OUTBOARD


3'-0"
18# PL.
3½"x4"x7.2#
18# PL.
20"

TYPE BRACKET IN WAY OF CASING
12'-0" OFF ℄
LOOKING OUTBOARD


3'-6" R.
PLATING 18# IN WAY OF HATCH 22# D.R. BUTTLAPS
STIFFENERS 4"x3½"x3½"x13.6# SPACED 6'-6" TO ℄
7'-0"
5'-6" TO ℄ OF SHIP
7'-2"
6"x6"x19.6#

SECTION THRU SHAFT ALLEY

FINAL PLAN
SECTION THRU ENGINE ROOM
SCALE ½" = 1 FOOT. MADE BY S.M. PATE, 26 JAN. '21.
NEW YORK SHIPBUILDING CORPORATION
CAMDEN, NEW JERSEY, U.S.A.
DR 251-201-B
NAVAL ARCHITECT.

LIBRARY STAMPS
1 - USSB PREL 19.5.20
2 MAIL 15.5.20
3 MAIL 12 JA 21
5 L.B. 1
6-7 S. 10 2
8-9 6
10 26 JA 21
10 MAIL
2 F. 21
11 MAIL 1
3 F. 21
12 MAIL 1
9 MR 21

REFERENCE PLANS
MIDSHIP SECTION DR.251-201-E
SECTION THRU BOILER ROOM DR.251-201-C
TYPE O.T. BULKHEAD DR.251-201-D
TYPE W.T. BULKHEAD DR.251-201-F

ALTERATIONS DATE APP'D

President Jefferson

Nyk S.S. Corpn
243
D.E. boilers

LLOYDS REGISTER OF SHIPPING
RECEIVED
21 JUN 1918
LONDON

WH420-0127

New York 143 – Boiler

W1420-0127

NEW YORK SHIPBUILDING CORP.
CAMDEN, N. J., U. S. A.,
BLUE PRINT ROOM
Print No. 4
Made [illegible] 23 1918
For Dept. Lloyds

W1420-0127

243-561-1

FRONT TUBE PLATE
BACK TUBE PLATE
ORDINARY TUBES #10 BWG.
12-CONTINUOUS THREADS PER INCH
STAY TUBES #2 BWG .284"
FRONT & BACK TOP HEAD
ORDINARY TUBE 1/8 THICK
DETAIL OF TUBE IN TOP HEAD
BACK C.C. PLATE
BACK TOP HEAD
12-CONTINUOUS THREADS PER INCH
DETAIL OF TUBES ON BACK HEAD.
4THDS PER INCH
DETAIL OF TOP HEAD STAY
1 1/2" RIVETS
1 1/2" HOLES
FIXED PLATES
ALL OTHER PLATES PORTABLE FOR INSPECTION.
ARR. OF WRAPPER SCREW STAYS BET. WING WRAPPER & SHELL
1 1/4" RIVETS 1 5/16" HOLES ABT 3 3/4 PITCH
1 1/2" RIVETS 1 9/16" DRILLED HOLES
1 1/2" RIVETS, ABT 4 1/2 PITCH
1 9/16 HOLES
INSIDE BUTTSTRAP - 1 1/8" THICK
OUTSIDE BUTTSTRAP - 1 1/8" THICK
1 1/4 RIVETS 1 5/16" HOLES ABT 3 3/8 PITCH
5 FT. 10 3/4
SUPERHEATING SURFACE OF 4 TUBES: 252.8#
CALORIMETER OF 4 TUBES: 1.402#
21 ORDINARY TUBES 4" O.D. 1/4" THICK
BEST CHARCOAL IRON TUBES
11 FT. 6" BET. HEADS
STEEL NET AREA 6.49□"
4 THREADS PER INCH
12 FT. 3 9/16" OVER STAYS
DIE 2027 - 99 - 1/2" THICK
1 13/16 DIA. HOLE
1" RIVETS WITH THIMBLES 1 1/32 HOLES
FUSIBLE PLUG
TUBES 2 1/2" O.D. BEST CHARCOAL IRON
312 ORDINARY TUBES 2 1/2" O.D. #10 B.W.G.
133 STAY " 2 1/2" O.D. #2 B.W.G.
445 TOTAL
7 FT. 7 1/2 BET. PLATES.
15 FT. 3" MEAN DIA.
7/8 RIVETS 2 1/8" PITCH
2 FT. 11" BET. PLATES
2 FT. 8 7/16"
60 TUBES 2 1/2" O.D. W.I.
HEATING SURFACE OF 4 TUBES 29.45#
CALORIMETER OF 4 TUBES 1.864#
1 3/4" STAYS
10 FULL-V-THREADS PER INCH
2" STAY W.I. NET AREA - 3.1416□"
8 FT. 3 1/16" OVER FURNACE
GRATE 5 FT. 6" LONG
2 1/4" STAY STEEL
2 1/4" STAY STEEL NET AREA 3.976□"
NOT FASTENED TO SHELL
1" RIVETS 3 1/2" PITCH
103 ORDINARY TUBES
43 STAY
146 TOTAL
37 ORDINARY TUBES
17 STAY
54 TOTAL
THIS ROW OF STAYS RIVETED OVER AS SHOWN
SUPPORT FOR COMB. CHAMBER RIVET ANGLE TO PLATE BUT DO NOT RIVET ANGLE TO SHELL.
4-1 5/8" HOLES FOR 1 1/2" BOLTS
7/8" RIVETS 29/32" HOLES 2 1/8" PITCH
5 FT. 4" MKD.
E. BACK BUTT
E. FRONT BUTT
20 STAY TUBES
3/4" RIVETS 4 1/2" PITCH
WRAPPER
ANGLE STIFFENER
HEAD
FURNACE
BOTTOM HEAD
TUBE SHEET FIRE SIDE
BACK SHEET
WATER SIDE
TUBE SHEET
FURNACE & C.C. TUBE SHEET
C.C. TUBE SHEET & WRAPPER
C.C. BACK SHEET & WRAPPER
75
76
78
79
80
81
82
83
88
89
90

BUREAU OF COMMERCE

$$\text{PLATE \%} = \frac{8.375-1.5625}{8.375}\times100 = 81.3\%$$

$$\text{RIVET \%} = \frac{5\times1.917\times1.75\times.85}{8.375\times1.6875}\times100 = 100\%$$

LLOYDS RULES

$$\text{PLATE \%} = \frac{8.375-1.5625}{8.375}\times100 = 81.3\%$$

$$\text{RIVET \%} = \frac{5\times1.767\times1.75\times85}{8.375\times1.6875} = 93\%$$

CONSTRUCTED UNDER THE BOARD OF SUPERVISING INSPECTORS.
DEP'T OF COMMERCE & LLOYDS RULES
FOR 220 LBS. WORKING PRESSURE

DESCRIPTION	THICKNESS	U.S. RULES	LLOYDS RULES
SHELL	$1\frac{11}{16}$"	$P=\frac{60000\times1.6875}{6\times91.5}+20\%=221\#$	$P=\frac{22(27-2)\,81.3}{184.6875}=242\#$
FURNACE	$\frac{11}{16}$"	$P=\frac{15600\times.6875}{47}=228\#$	$P=\frac{1259\times(11-2)}{49.375}=229\#$
TOP HEAD PLATE	$1\frac{9}{32}$"	$P=\frac{175\times20.5^2}{257}=286\#$	$P=\frac{140\times20.5^2}{257}=228\#$
TOP HEAD STAYS	$2\frac{7}{8}$	$S=\frac{17\times15\times220}{6.49}=8644\#$	$P=\frac{10400\times6.49}{17\times15}=264\#$
TUBE PLATE	$\frac{13}{16}$	$P\frac{(3.75-2.232).8125\times27000}{36.4375\times3.75}=243\#$	$P=\frac{(3.75-2.232)1750\times13}{35\times3.75}=263\#$
C.C. CROWN PLATE	$\frac{5}{8}$	$P=\frac{135\times10^2}{52.625}=256\#$	$P=\frac{135\times10^2}{52.625}=256\#$
C.C. CROWN STAYS	$1\frac{3}{4}$	$S=\frac{7.5\times7\times220}{1.925}=6000\#$	$P=\frac{7500\times1.925}{7.5\times7}=275\#$
C.C. WRAPPER PLATE	$\frac{5}{8}$	$P=\frac{135\times10^2}{51.695}=261\#$	$P=\frac{135\times10^2}{51.695}=261\#$
C.C. WRAPPER STAYS	$1\frac{3}{4}$	$S=\frac{7.375\times7\times220}{1.925}=5900\#$	$P=\frac{7500\times1.925}{7.375\times7}=279\#$
C.C. BACK PLATE	$\frac{5}{8}$	$P=\frac{135\times10^2}{54.406}=248\#$	$P=\frac{135\times10^2}{54.406}=248\#$
C.C. BACK STAYS	$1\frac{3}{4}$	$S\frac{7.5\times7.25\times220}{1.925}=6214\#$	$P=\frac{7500\times1.925}{7.5\times7.25}=265\#$
CROWN GIRDERS	$9\frac{1}{4}$"×1	$P=\frac{917\times9.25^2\times2}{(36.4375-7)\,7.5\times3.036}=233\#$	$P=\frac{11850\times9.25^2\times2}{(35-7)\,7.5\times35}=275\#$
WIDE WATER SPACE FRONT HEAD	$1\frac{1}{16}$		$P=\frac{140\times17^2}{13^2}=239\#$

ALTERATIONS	DATE	APP'D

BOILER DATA	ONE BOILER HEATING SURFACE
TUBES	2223.9#
FURNACES	164.5#
COMB. CHAMB.	231.5#
BACK TUBE PLATE	46.5#
TOTAL H.S.	2666.4#
GRATE SURFACE	61.875#
H.S./G.S.	43
CALORIMETER	11.17#
G.S./CAL.	5.53

NOTE:- THIS BOILER IS DESIGNED WITH A LOVEKIN STEAM DRIER. HOT GASES ARE TAKEN FROM THE COMBUSTION CHAMBER THROUGH STAY TUBES AND THEN DIRECTED THROUGH THE UPPER TUBES.

TENSILE STRENGTH OF SHELL PLATES & GIRDERS 60,000 TO 71,680 LBS.
" " " FLANGE " 55000 TO 65000 LBS.
WORKING PRESSURE 220 LBS. PER SQ. INCH.
WATER TEST PRESSURE 330 LBS. PER SQ. INCH.
EVAPORATION 300 LBS. OF WATER PER SQ. FT. OF GRATE PER HOUR.
3 1/2" TWIN SAFETY VALVE COMBINED AREA OF 19.24□"
FOR DETAIL OF STEAM DRIER SEE DR. 202-561-4
" " " BOTTOM HEAD STAYS " " 202-561-3

2-BOILERS AS DRAWN
1-BOILER TO OTHER HAND
FOR ONE SHIP.

ALL CALKING EDGES OF BOILER PLATE TO BE MACHINE PLANED. SEAMS, BUTTS AND LAPS TO FIT CLOSELY DRAWN UP, METAL TO METAL AND AFTER BEING RIVETED, CALKED INSIDE AND OUTSIDE.

ALL SCREW STAYS W.I.
SCREW STAY TUBES ON BACK HEAD MARKED THUS
◎ 2 1/2" O.D. 1 5/8" I.D. NUTS 1 1/2" DEEP IN C.C. NO NUTS ON BACK HEAD NET AREA = 2.282□"
SCREW STAYS ON BACK HEAD MARKED THUS
⊗ 2" DIA. NUTS 1 1/4" DEEP IN C.C. & BACK HEAD NET AREA = 2.593□"
SCREW STAYS ON BACK HEAD MARKED THUS.
○ 1 3/4" DIA. NUTS 1 1/4" DEEP IN C.C. NO NUTS ON BACK HEAD NET AREA = 1.925□"
WRAPPER SCREW STAYS 1 3/4" DIA. (EXCEPT AS SHADED) NUTS 1 1/4" DEEP.
WRAPPER SCREW STAYS BET. WING WRAPPER & SHELL MARKED THUS ● 2" DIA NUTS 1 1/4" DEEP.
GIRDER SCREW STAYS 1 3/4" DIA. NUTS 1 3/4" & 1 1/4" DEEP
ALL SCREW STAYS HAVE 10 FULL-V-THREADS PER INCH
ALL SCREW STAY TUBES ON BACK HEAD HAVE 12 FULL-V-THREADS PER INCH.
ALL SCREW STAYS TO HAVE 3/16" HOLE DRILLED 1/2" BEYOND INNER SURFACE OF PLATE.

1 9 CK 1
18MY18
2-6 LLOYD'S 5
7-10 SB INSPA
23MY18

APPROVED
LLOYD'S REGISTER OF SHIPPING
MAY 28 1918
NEW YORK

24-6-18

ENGINE DEPARTMENT
TITLE S.E. SCOTCH BOILER
15 FT. 3" MEAN DIA. x 11 FT. 6" BET. TOP HEADS
220 LBS. WORKING PRESS.
SCALE 1"-3'-6"=1 FT. DRAWN BY DATE
TRACED BY 853 CHECKED BY 823 CHIEF DRAFTSMAN GAtt.
NEW YORK SHIPBUILDING CORP.
CAMDEN, NEW JERSEY, U.S.A.
DR. 243-561-1
APPROVED P.M. Young ENGINEER.

243-561-1

A. Y. S. Corp

No 240 - 1 - 2

Detail of Tail Shaft

Amended Print

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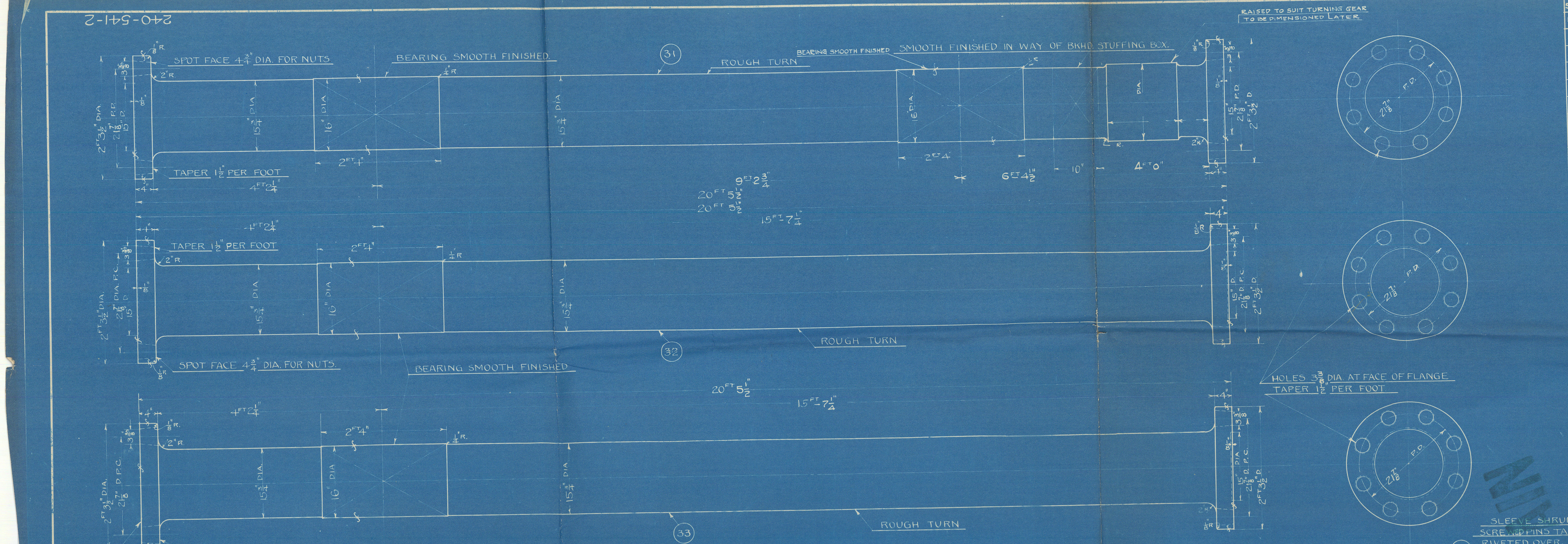
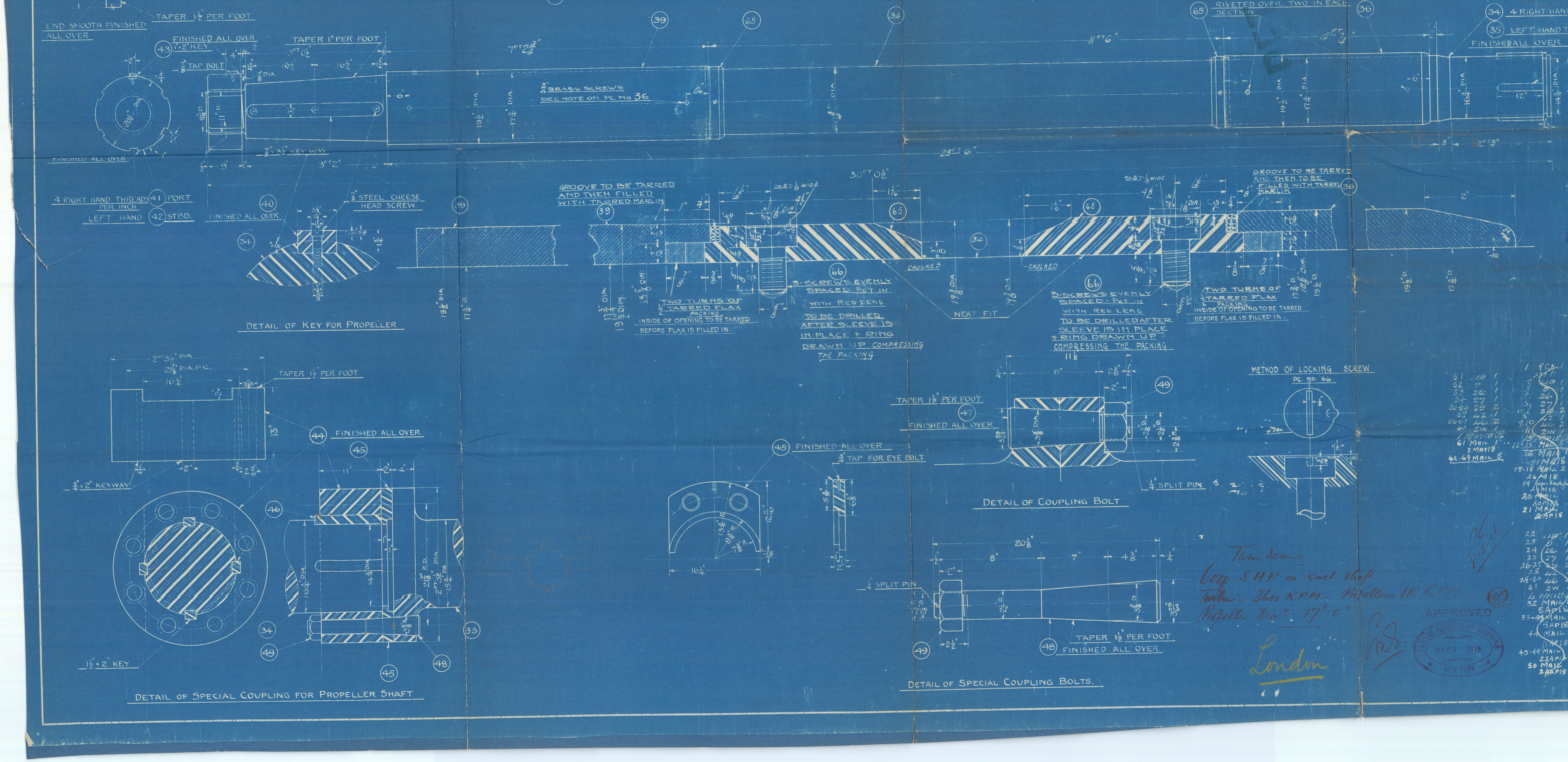

RAISED TO SUIT TURNING GEAR TO BE DIMENSIONED LATER
SPOT FACE 4¾" DIA FOR NUTS
BEARING SMOOTH FINISHED
31
ROUGH TURN
BEARING SMOOTH FINISHED SMOOTH FINISHED IN WAY OF BKHD STUFFING BOX
TAPER 1½" PER FOOT
20FT 5½"
15FT 7¼"
32
33
HOLES 3⅜" DIA AT FACE OF FLANGE
TAPER 1½" PER FOOT
END SMOOTH FINISHED ALL OVER


SLEEVE SHRUNK ON AND PINNED WITH ⅜" DIA. BRASS SCREWS, HOLES TAPPED THROUGH SLEEVE INTO SHAFT AND RIVETED OVER, TWO IN EACH SECTION
43
FINISHED ALL OVER
1½" × 2" KEY
TAPER 1" PER FOOT
¾" TAP BOLT
39
65
34
11FT 6"
4FT 3"
36
4 RIGHT HAND THREADS PER INCH - PORT
35 LEFT HAND THREADS - STBD.
FINISHED ALL OVER
46 4 KEYS 2" × 1½"
⅜" BRASS SCREWS SEE NOTE ON PC. NO 36
FINISHED ALL OVER
KEY WAY
23FT 6"
4 RIGHT HAND THREAD 41 PORT PER INCH
LEFT HAND 42 STBD.
40 FINISHED ALL OVER
STEEL CHEESE HEAD SCREW
DETAIL OF KEY FOR PROPELLER
GROOVE TO BE TARRED AND THEN FILLED WITH TARRED MARLIN
SLOT ⅛" WIDE
66 3-SCREWS EVENLY SPACED - PUT IN WITH RED LEAD TO BE DRILLED AFTER SLEEVE IS IN PLACE + RING DRAWN UP COMPRESSING THE PACKING
TWO TURNS OF TARRED FLAX PACKING
INSIDE OF OPENING TO BE TARRED BEFORE FLAX IS FILLED IN.
CAULKED
NEAT FIT
GROOVE TO BE TARRED AND THEN TO BE FILLED WITH TARRED MARLIN
TAPER 1½" PER FOOT
44 FINISHED ALL OVER
¾" × 2" KEYWAY
45 FINISHED ALL OVER
¾" TAP FOR EYE BOLT
47 FINISHED ALL OVER
49
DETAIL OF COUPLING BOLT
METHOD OF LOCKING SCREW PC. NO. 66
¼" SPLIT PIN
1½" × 2" KEY
DETAIL OF SPECIAL COUPLING FOR PROPELLER SHAFT
¼" SPLIT PIN
TAPER 1½" PER FOOT
48 FINISHED ALL OVER
DETAIL OF SPECIAL COUPLING BOLTS.

QUANTITY FOR ONE COMPLETE SHIP.

SPARES NO. PCS	NO. PCS.	NAME.	MAT'L.	PAT. NO.	REMARKS.	DR. NO.	PC. NO.
	2	SHAFT - FOR'D. SECTION	F. S.		FORGING PC. NO. 3 - DR. 240-541-4	240-541-2	31
	10	" - INTERMEDIATE "	"		" " " 2 - "	"	32
	2	" - AFT SECTION	"		" " " 2 - "	"	33
	1	PROPELLER SHAFT	"	PORT.	" " " 1 - "	"	34
	1	" "	"	STBD.	" " " 1 - "	"	35
	2	SLEEVE	COMP. G.	240-541-36		"	36
	2	"	"	240-541-39		"	39
	2	KEY	F. S.		FOR PROPELLER	"	40
	1	NUT - PORT	"		FINISHED ALL OVER FOR PC. NO. 34 4 THREADS PER INCH RIGHT HAND.	"	41
	1	" - STBD.	"		FINISHED ALL OVER FOR PC. NO. 35 4 THREADS PER INCH LEFT HAND	"	42
	2	KEY	"		FOR SHAFT NUT	"	43
	2	COUPLING SLEEVE	"			"	44
	4	PRESS. RING SEGMENT	"			"	45
	8	KEY	"		FOR COUPLING	"	46
24	112	COUPLING BOLT	"		2½" STD. THREAD.	"	47
	16	" "	"		" " "	"	48
24	128	NUT	W. I.		2½" STD. 2" THICK	"	49
	4	RING	STEEL		FINISHED	"	65
	12	SCREWS	STEEL		FINISHED.	"	66

EXTRA BEARING PLACED ON PC. Nº 31 DIA. OF COUPLING BOLTS INCREASED FROM 3¼ TO 3⅜"	2-AP. 1918
FORD END OF PROPELLER SHAFT MODIFIED	5-AP. 1918
SLEEVES ON PROPELLOR SHAFT CHANGED TO BE AT BEARINGS ONLY AS REQUIRED BY LLOYDS	17-AP. 1918
LENGTH OF PC. Nº 31-32 & 33 INCREASED FROM 20FT 3" TO 20FT-3½" PLACE FOR TURNING GEAR PROVIDED	26-AP-18

President
Jefferson

TITLE **ENGINE DEPARTMENT.**

PROPELLER AND LINE SHAFTING

SCALE 1", 1½", 3" & 12" FT. DRAWN BY 878 DATE 15 MAR. 18
TRACED BY 878 CHECKED BY 877 CHIEF DRAFTSMAN Goh
NEW YORK SHIPBUILDING CORPORATION,
CAMDEN, NEW JERSEY, U.S.A.
DR. 240-541-2
APPROVED CHIEF ENGINEER

51 LIB 1
52 9 1
53 26 1
54 27 1
55-56 29 2
57 42 1
58-59 46 2
60 2W 1
1 MAY18 Pe
61 MAIL 1
2 MAY18
62-69 MAIL 8

1 9 CA 1
27 F 18
2 LIB 1
3 9 1
4 26 1
5 27 1
6-7 29 2
8 42 1
9-10 46 2
11 2W 1
15 MR18 Pe
12-15 MAIL 4
16 MAIL 1
21 MR18
17-18 MAIL 2
26 M18
19 Paper Vandyke 1
21 M18
20 MAIL 1
30 M18
21 MAIL 1
2 AP18
22 LIB 1
23 9 1
24 26 1
25 27 1
26-27 29 2
28 42 1
29-30 46 2
31 2W 1
4 AP18 Pe
32 MAIL 1
5 AP18
33-43 MAIL 10
5 AP18
44 MAIL 1
11 AP18
45-49 MAIL 5
22 AP18
50 MAIL 1
2 AP18

Twin Screws
6000 S.H.P. on each shaft
Turbines 3600 R.P.M. - Propellers 110 R.P.M.
Propeller Diam. 17'-0"

London

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